ORCHARDGRASS

Dactylis glomerata L.

plant symbol = DAGL

Contributed by: USDA NRCS Plant Materials Program

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Uses

Livestock: The primary use of orchardgrass is for forage production. It is highly palatable to all classes of livestock. Orchardgrass is one of the best forage grasses for use in the Northeast in intensive rotational grazing systems.

Erosion control: Because of its dense network of roots, orchardgrass provides good erosion control on those soils to which it is particularly adapted.

Wildlife: Orchardgrass is used in grass-legume mixes for nesting, broad rearing, escape and winter cover in upland wildlife and conservation plantings.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

Dactylis glomerata L., orchardgrass, is a persistent, cool season bunchgrass. Under dry land conditions, it usually develops distinct clumps and flower culms 15 to 18 inches tall. Leaves are usually less than 12 inches in height. When grown under irrigation or in more moist situations, it attains a much larger stature and grows together in a close stand. No vegetative spread has been observed. Orchardgrass is one of the earliest species to grow in the spring, making tremendous growth during cool conditions. Due to deep roots it also is capable of strong summer growth when conditions are favorable. Orchardgrass has 487,000 seeds per pound.

Adaptation and Distribution

Orchardgrass is found from Maine to the Gulf Coast states and from the Atlantic Coast to the eastern Great Plains. It is common throughout the Appalachian Mountains and is especially well-adapted to Maryland, Pennsylvania, West Virginia, Virginia, Kentucky, and Tennessee. It is also found in the high-rainfall regions of the western mountains and in irrigated areas throughout the West. Areas of greatest adaptability in the West are the sagebrush, grass, and pinyon-juniper communities, although the plant has performed well when seeded in the aspen and Douglas fir communities. In the Northeast, orchardgrass is adapted to somewhat poorly drained to well-drained soils.

Orchardgrass performs well on different textured soils ranging from clay to gravely loams and on shallow to deep soils. It does not grow well in saline soils and areas with high water tables. It has the ability to establish and persist in areas that receive as little as 11 inches of annual precipitation.
Orchardgrass performs best in a pH range of 5.8 – 7.0.

For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

Establishment

A clean, firm, weed-free seedbed is recommended. Range and erosion control seedings should be made in the late fall or very early spring. Do not seed after the spring moisture period is well advanced or a failure may occur because of drought and hot summer conditions before the grass is well established. A deep furrow or range drill with press wheels may be used; orchardgrass is easily established with common agricultural drills in the Northeast. For range and critical area treatment a seeding rate of 3 to 4 pounds per acre is recommended. If broadcast, double the

seeding rate. Adjustments in seeding rate should be made when seeding in mixtures. Seeding depth should not be more than 1/2 inch. When seeding for seed increase, planting should be in 28 to 40 inch rows. Seed at 1-1/2 to 2 pounds per acre. Seed matures evenly and is ready for harvest in mid-August. When direct combining the seed should be dried before storing.

Management
Under dry land conditions the planting should not be grazed until late summer or fall of the second growing season. The plants may be severely damaged by overgrazing especially in the seedling year. Use no more than 60% of the annual growth during the winter season or 50% during the growing season. This plant responds well to a rotation-deferred grazing system. Periodically the grass should be allowed to mature and produce seed for continuation of the stand.

Orchardgrass responds to good fertility management. One strategy to even out the forage production is to fertilize the stand after the first and second cutting or grazing to boost late spring and summer production. Apply fertilizer based upon regular soil tests.

Pests and Potential Problems
Brown stripe, scald, rust and leaf spot are the most prevalent and destructive disease in orchardgrass. Resistance to these varies among cultivars. Japanese and green June beetle larvae feed on orchardgrass roots; sawflies feed on their tops. Little is known, however, about the economic loss caused by these insects.

Cultivars, Improved, and Selected Materials (and area of origin)
'Latar' has a lower lignin (fiber) content than other orchardgrass cultivars and is 10% higher in digestibility. It matures 10 to 14 days later than common orchardgrass and is usually in the pre-bloom stage when alfalfa is at the optimum growth stage for making hay. Therefore a mixture of 'Latar' and alfalfa makes a high quality hay. Forage yields of 'Latar' are at least as much per acre as the earlier maturing varieties and forage quality is generally superior.

'Potomac' is a productive, persistent, rust-resistant cultivar that produces good yields but matures too early to be compatible with alfalfa for hay. When alfalfa is ready to cut, 'Potomac' is too mature to produce good quality hay. This variety should be used where early maturity is needed.

'Paiute' is a cultivar that produces an abundance of basal leaves and leafy upright stems. It's intended use is for forage production on arid rangelands.

'Akaroa', 'Berber', 'Pomar', and 'Sandia' are other orchardgrass cultivars. Many cultivars are available for forage production.

Seeds are available from most commercial seed suppliers.

Control
Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA, NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

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